Town of Simsbury

933 HOPMEADOW STREET P.O. BOX 495 SIMSBURY, CONNECTICUT 06070

ENERGY CONSERVATION AND CLEAN SOURCES

Current and On-going Programs

April 2008

The following is a brief summary of energy savings measures that the Town has incorporated into its buildings over at least the past ten years.

CONNECTICUT ENERGY EFFICIENCY FUND

All eligible new and renovated buildings have participated in this program, which not only results in energy savings, but also provides for an incentive award payment.
Notable projects have included:

Project	Incentive Payment
Simsbury Farms Ice Rink	$ 80,000.00
Town Offices HVAC	$ 9,690.00
High School Renovation/Addition	$ 89,000.00
Waste Water Treatment Plant	$115,778.00
Library	$ 44,873.00
Total	**$339,341.00**

Energy savings have resulted in cost increase avoidances of between 20% and 30%.

Energy savings are accomplished through the use of efficient lighting/ballasts, occupancy sensors, Variable frequency drive (VFD) motors, direct digital control (DDC) heating/ventilating systems, and more efficient HVAC equipment.

At present, the Tariffville School and Simsbury Farms Buildings' projects are being designed to participate in this program.

DEMAND REDUCTION PROGRAM

For facilities with emergency generators, the Town receives payment from ISO New England for agreement to "shed electric loads" during high demand periods. To accomplish this, the Town would operate its facilities' generators, upon request. The Waste Water Treatment plant, High School, and Town Office buildings are registered under this program.

This program reduces greenhouse gas emissions because the "electric load shedding" lessens the time that older fossil fuel generating facilities need to run to meet peak demands.

Significant cost savings result from participation. Savings are realized through credits on the building's monthly electric bills or a lump sum payment. In the case of the Waste Water Treatment Plant, the credit is in excess of $3,000.00/month.

CLEAN ENERGY

The Town, in cooperation with the Connecticut Conference of Municipalities, purchases power from Trans Canada Power Marketing for its major electricity uses. This program results in a cost savings, but, more importantly, provides power that is over 30% from renewable, non greenhouse gas producing, and hydro sources. Compared to the average emissions levels from all New England power sources, the Trans Canada power mix produces:

33% less Carbon Dioxide
58% less Nitrogen Oxide
73% less Sulfur Dioxide

LED USE

Light emitting diode (LED) light sources have been installed in traffic signals, in cooperation with the Connecticut Department of Transportation. A 30% energy use reduction results.

SMART POWER 20% BY 2010

The Board of Selectmen has committed the Town to meeting the goal of utilizing 20% clean energy by the year 2010. The Connecticut Clean Energy Communities Program, as administered by Connecticut Innovations, provides Connecticut communities an opportunity to support clean energy alongside its local residents, businesses and institutions.

For each 100 residents, and major municipal or other large power users, that sign up for securing energy from clean sources, the town receives a 2 kilowatt solar PV system.

SOLAR AND WIND POWER

In addition to the Smart Power 20% by 2010 Program, the Town will pursue the feasibility of installing solar and wind power equipment as part of the Simsbury Farms Recreation Facility's major building construction and renovation project.

BIO-DIESEL FUEL

The Town will be researching the use of bio-diesel instead of low-sulfur diesel. Bio-diesel burns cleaner, thus reducing carbon dioxide output by up to 15%. With increasing regular diesel costs, this option may also result in cost savings.

HYBRID CARS-ALTERNATIVE FUEL VEHICLES

With several options available, the Town will be able to choose among natural gas, gas-electric hybrids, and, in 2008, a hydrogen fuel cell vehicles. These vehicles have increased gas-mileage ratios and are cleaner burning.

Prior to selecting any of these options, a careful analysis will be performed to determine the environmental and economic benefits. Presently the Town car fleet is small, drives short distances and does not have ready access to a natural gas fuel station.